



Week in Review: 03/17/03 -03/23/03

Ron Moore – FNAL

- Store Summary
- Schedule for Week



Store Summary

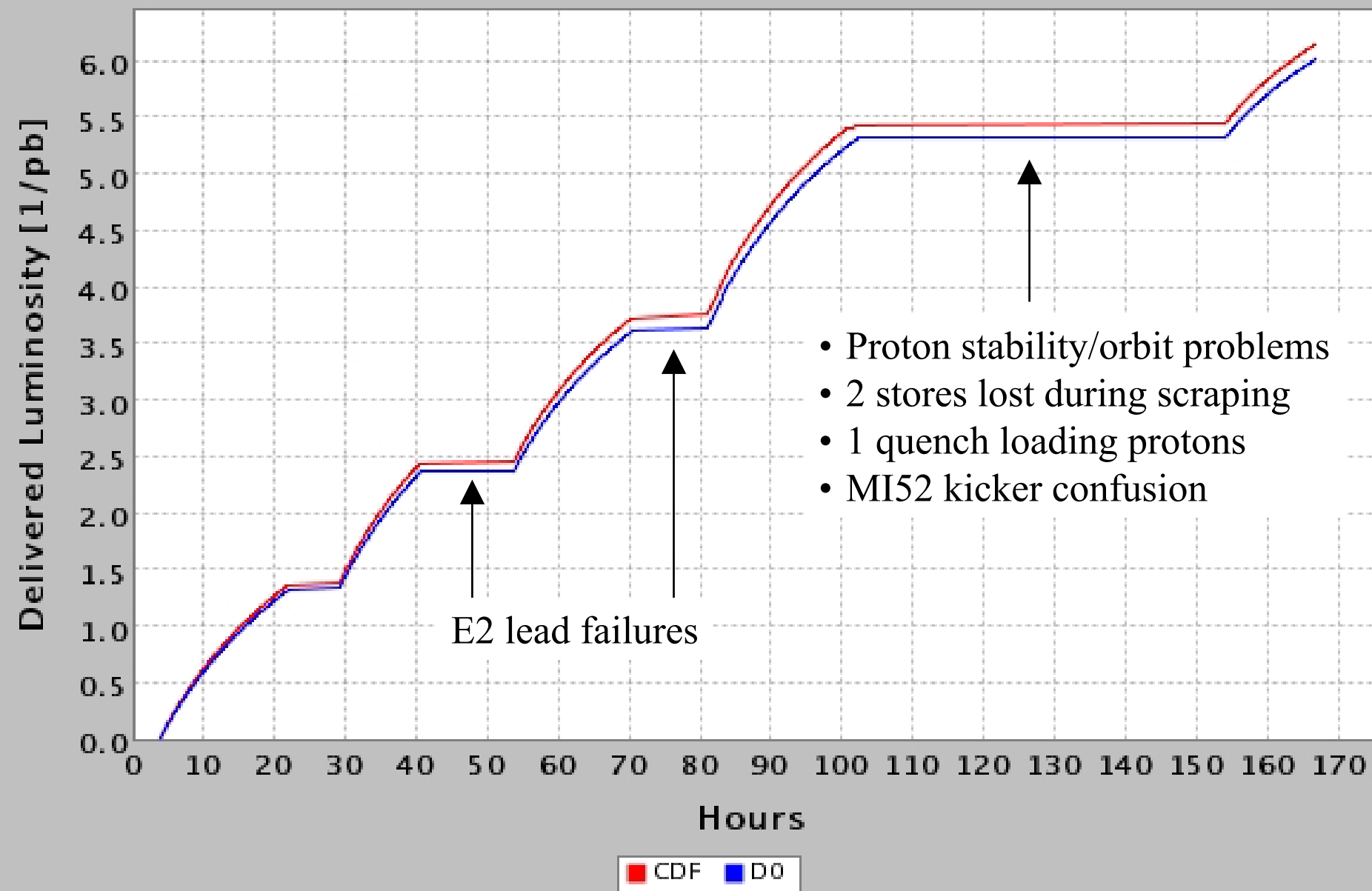
Store	Initial Lumi (E30)	CDF Deliv'd Lumi	Termination	Duration (hr)	Comments
2321	34.3	1383	Intentional	18.3	High CDF losses; some collimators aligned during store
2323	37.4	1081	Abort	11.5	CDF losses better; E2 wet engine tripped; E2 lead failure
2326	34.1	1280	Abort	16.9	E2 wet engine tripped; E2 lead failure
2328	40.7	1715	Intentional	21.5	2 hrs end-of-store studies
2341	22.1	750	Intentional	14.2	Shot from 85 mA stack after problematic couple of days...



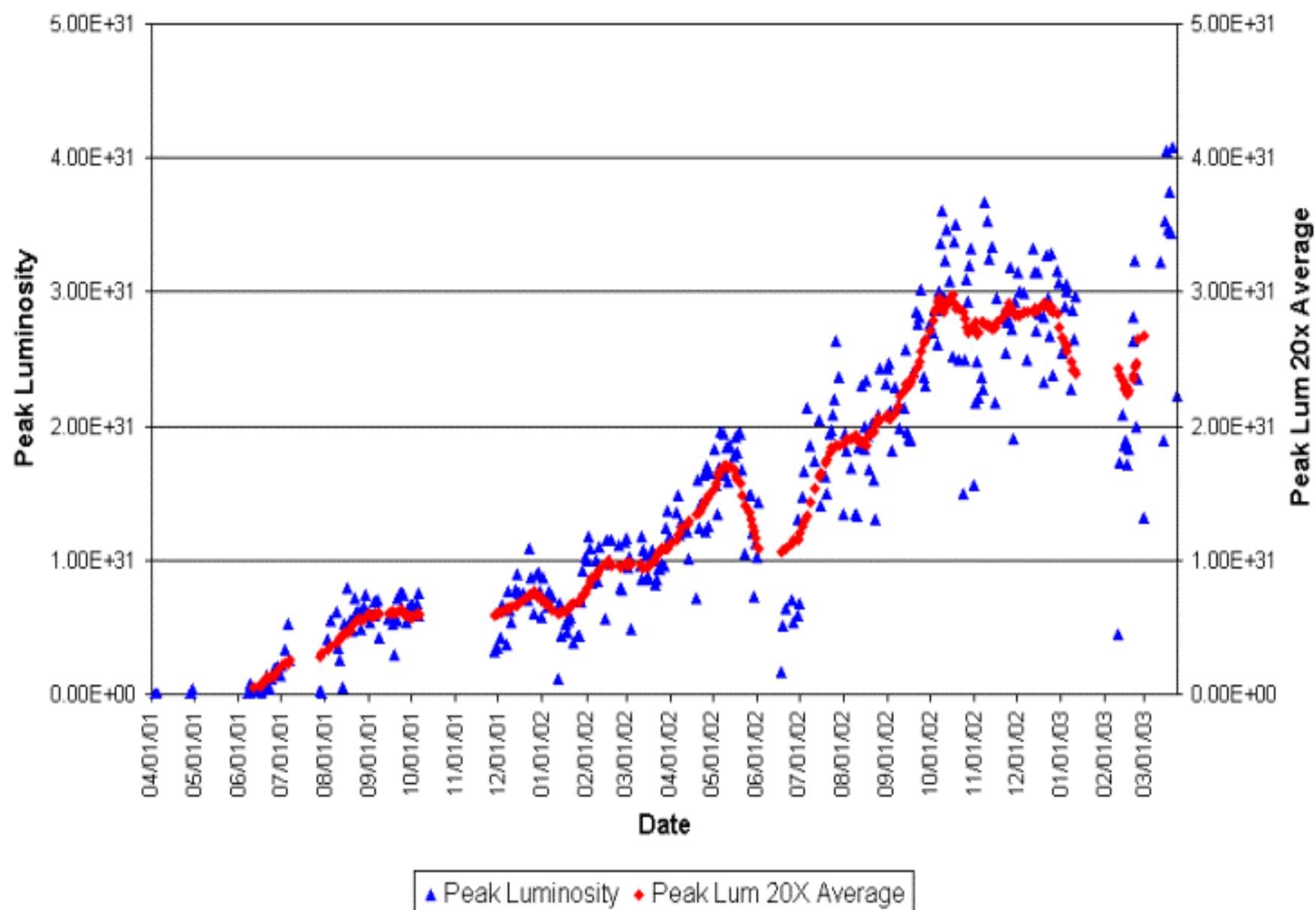
Summary of Stores that Weren't

- Friday 3/21 – proton stability problems
 - Unplugged cabled in Tev transverse damper system?!
 - Dampers OK – coupling on proton helix required orbit smoothing
- Collimator problems caused quenches in 2 stores
 - Secondary collimators went into beam
 - Offsets between LVDT reading and actual stepper motor position?
 - May have a viable theory...
- Quench during proton injection
 - LLRF problem caused beam to be injected onto circulating beam
- MI-52 kicker “problem” held up shot for 6 hours
 - Voltage for 120 GeV operation, not 8 GeV for injection into MI
 - Subtle issue with a beam permit being disabled

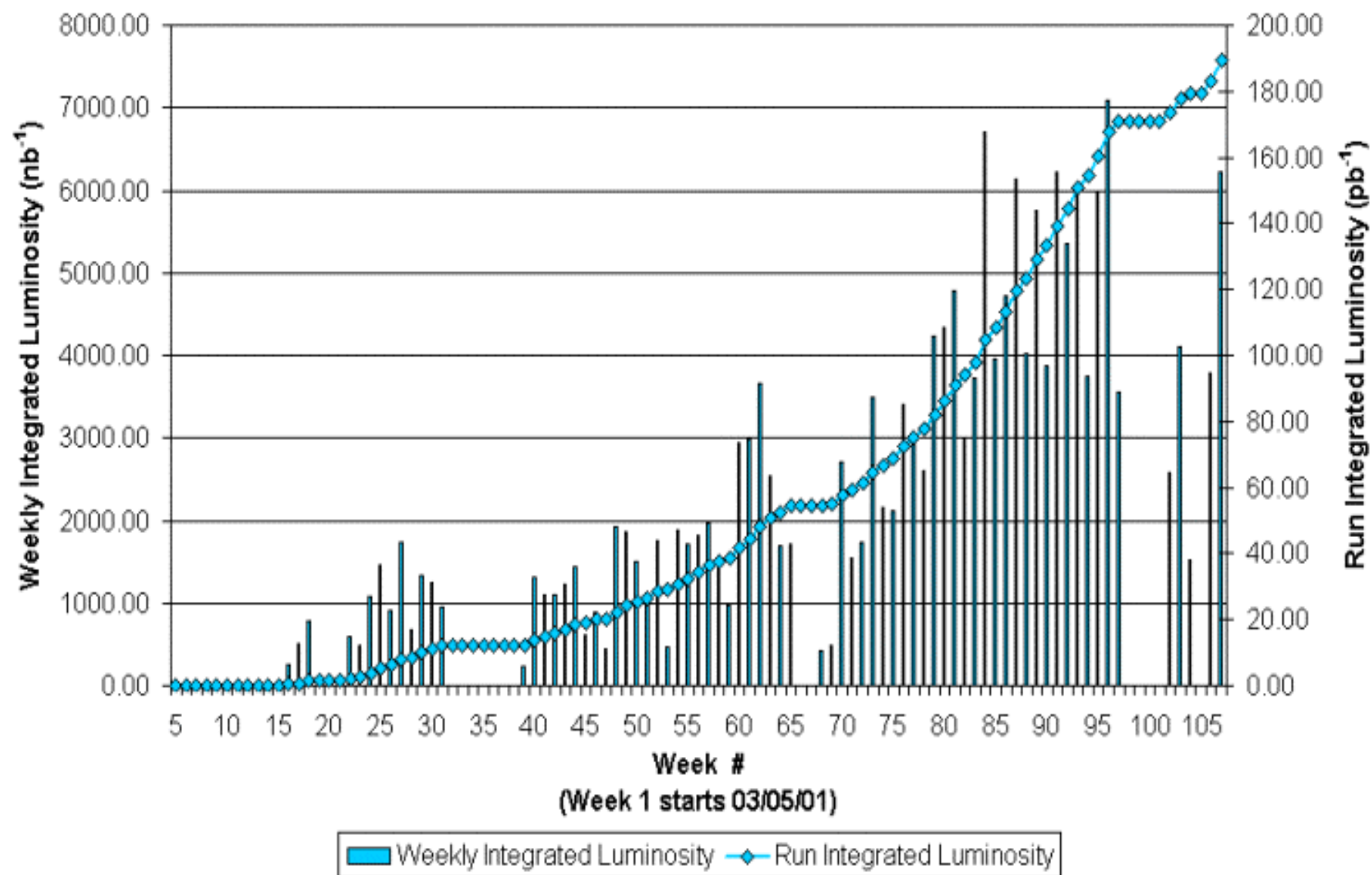
Tevatron Delivered Luminosity: Mar-17-2003 to Mar-23-2003












Collider Run IIA Peak Luminosity



Collider Run IIA Integrated Luminosity



Weekly Schedule

Update 12/16/02 11:32 AM	MONDAY 12/16/02	TUESDAY 12/17/02	WEDNESDAY 12/18/02	THURSDAY 12/19/02	FRIDAY 12/20/02	SATURDAY 12/21/02	SUNDAY 12/22/02
Owls 0000 to 0800	Stack and store	<u>TEV</u> - Store - EOS @ 0400 <u>Pbar</u> - Stacking - 0555 Beam Off 0600-0800 No access, Safety System Tests	<u>TEV</u> - Al Line Emitt. Growth - Head/Tail Mon. <u>Pbar</u> - Stacking <u>ML/RR</u> - Parasitic Studies	Shot Setup Shots Store - 		Stack and Store 	
DAYS 0800 to 1600	<u>TEV</u> - Store <u>Pbar</u> - Shots to RR <u>ML/RR</u> - Shots to RR	NTF – PT 0800 C/A in Linac, Booster, Tev CDF/D0 - S/A (NOT F-Sector, MI, & MI 8) more SS Tests 1400 controlled access to MI	<u>TEV</u> - Feeddown Coupling 150 Gev <u>Pbar</u> - Rev Prot. Deb/AP2, Orbits <u>ML/RR</u> - Parasitic Studies		NTF - PT 	Stack and Store 	
EVES 1600 to 2400	<u>TEV</u> - Store <u>Pbar</u> - Shots to RR <u>ML/RR</u> - Shots to RR	1700-2000 Startup <u>TEV</u> - Chromaticity up the ramp - Tune Tracker <u>Pbar</u> - Stacking <u>ML/RR</u> - Parasitic Studies	<u>TEV</u> - Ramp Bunch loss - Main./36x0 <u>Pbar</u> - Stacking 120mA <u>ML/RR</u> - Parasitic Studies			Stack and Store 	

Schedule can be found at <http://www-bd.fnal.gov/operations/schedules.html>



Tev Collimator Issues

- After Jan shutdown, CDF proton losses OK
- After A14 spool replacement, CDF losses very bad



Schedule

- Pbar pulsed magnet replacement underway (12 hrs)
- Access Tev for 2 hours to replace dead turbo cart, fix 2 broken BPMs
- Begin 1.5 – 2 shifts of Tev maintenance (orbits, tunes, collimators)
- No dedicated studies this week
- Next HEP shot Tuesday late morning / early afternoon
 - May depend on how pbar stacking recovers
- Linac down 2-4 hours tomorrow PM to replace LRF3 switching tubes
 - Investigate ORBMP regulation problems concurrently



Summary

- Excellent HEP stores early in week
 - Record initial, delivered luminosities
- End of the week was rocky
 - Several independent problems happened sequentially
- Remain optimistic! Problems understood.
- Delivered over 6 pb^{-1} for the the week
 - Best week since January shutdown
- After Tev maintenance shifts, resume “Stack & Store”